Kenneth J. Johnston, PH.D.



Scientific Director U.S. Naval Observatory



Dr. Kenneth Johnston is the Scientific Director for the U.S. Naval Observatory (USNO). He is responsible for the scientific oversight of USNO programs in precise time, time interval, Earth orientation and astrometry. He is developing the areas of radio and optical interferometry for astrometric and imaging applications with both ground and space instruments; advanced performance atomic clocks; and VLBI techniques for Earth orientation parameters to meet future Department of Defense requirements.

Dr. Johnston entered the Senior Executive Service in 1989 and has 39 years of civilian service with the Department of Navy. He has served as the USNO Scientific Director since 1993.

Dr. Johnston became the Chief Scientist and Director of the Center for Advanced Space Sensing at NRL in 1990 and the Superintendent of the Remote Sensing Division in 1992. During 1991 he was also the Superintendent of the Space Systems Technology Department of the Naval Center for Space Technology. During this time, Dr. Johnston developed an extensive program in remote sensing.

In 1980, Dr. Johnston became the Branch Head of the Radio and IR Astronomy Branch at NRL. He developed a program that applied interferometric techniques for high resolution imaging at optical and radio wavelengths. Under his direction a pioneering effort was developed which is resulting in the first imaging optical interferometer, the Navy Prototype Optical Interferometer (NPOI) located at Flagstaff, AZ. Other achievements include the establishment of a global inertial reference frame at optical/radio wavelengths, development of radio techniques to probe the surface of asteroids, and the first images of interstellar masers.

As a student at Georgetown, he was a summer student at the Naval Research Laboratory (NRL), later a NAS/NRC Postdoctoral Associate at NRL in the Radio Astronomy Branch of the Astronomy and Atmospheric Physics Division from 1969 through 1971. His research program was directed at the physics of compact HII regions and star forming regions in the galaxy. Dr. Johnston formally joined this branch in 1971 as a radio astronomer. During this time he accomplished research on interstellar masers and extragalactic nuclei using Very Long Baseline Interferometry (VLBI). He also advanced the field of radio astrometry using the Green Bank interferometer in Green Bank, WV.

Dr. Johnston was born in New York City. He received a bachelor's degree in electrical engineering in 1964 from Manhattan College and a Ph.D. in Astronomy from Georgetown University in 1969. His thesis research was on narrow band optical photometry of eclipsing binary stars.

Dr. Johnston's awards include the NRL Sigma Xi Award for Pure Science in 1985, an Alexander von Humboldt Senior Scientist Award that allowed him to pursue research in radio astronomy at the Max Planck Institute for Radio Astronomy for a year in 1985, a Max Planck Society Research Award in 1990, and the Superior Civilian Service award in 2006. He is a member of the International Astronomical Union, the International Union of Radio Science, the American Astronomical Society and the Royal Astronomical Society. He has served on many scientific advisory committees such as the Visiting Committees of the National Radio Astronomy Observatory, Northeast Radio Astronomy Corporation and Fachbeirat of the Max Planck Institute for Radio Astronomy, the National Academy of Science Committee's on Space Science and Astronomy, on the subcommittees for Interferometry and Radio Astronomy for the NAS Report Astronomy for the 1990s.